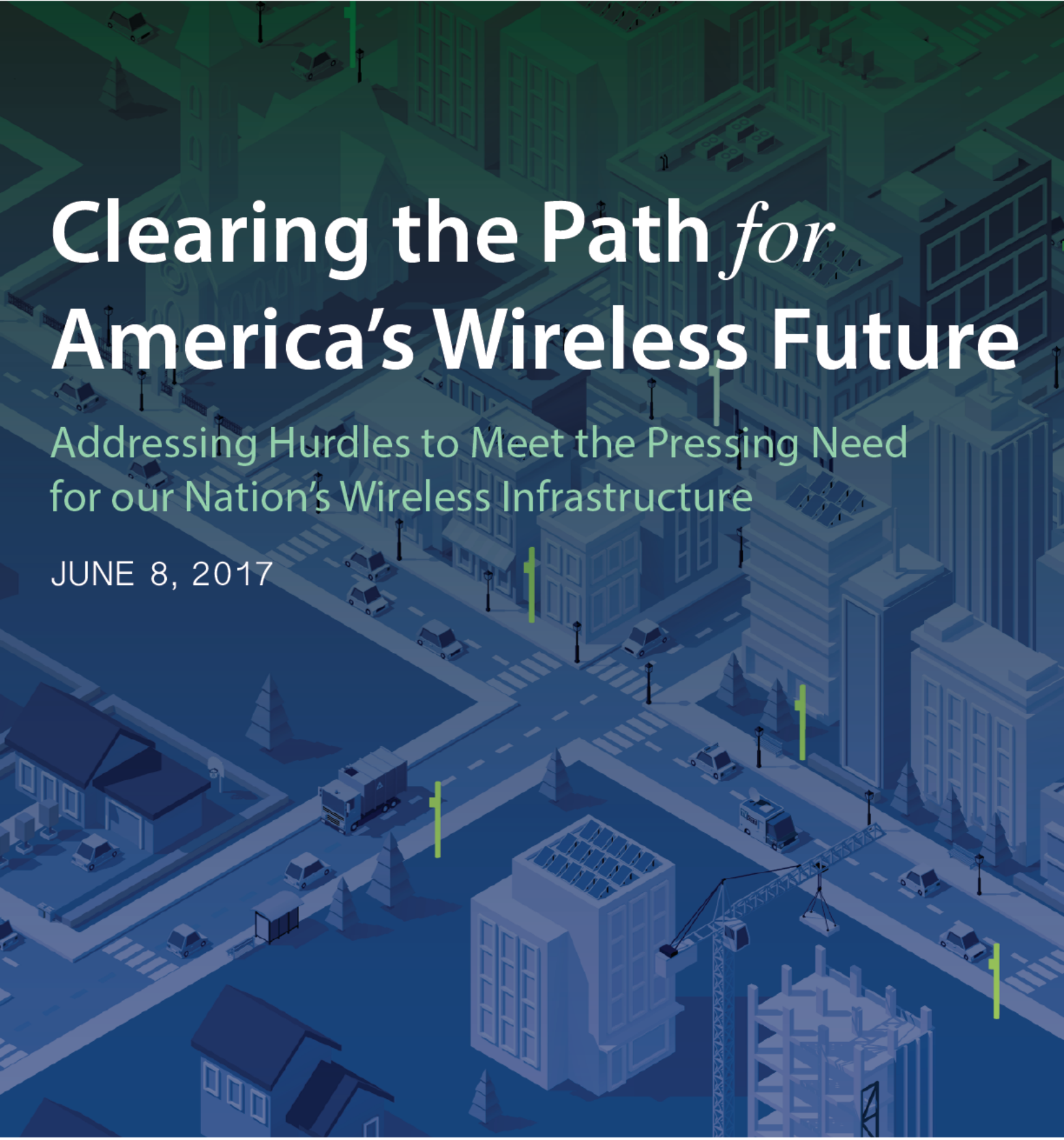


Clearing the Path *for* America's Wireless Future

Addressing Hurdles to Meet the Pressing Need for our Nation's Wireless Infrastructure

JUNE 8, 2017

cca rural. regional. nationwide.

Executive Summary

THE EXPLOSIVE GROWTH OF MOBILE DATA AND THE NEED FOR WIRELESS INFRASTRUCTURE REGULATORY REFORM TO MEET CONSUMERS DEMANDS

Competitive carriers across the country are rapidly mobilizing to update their wireless infrastructure to meet growing consumer demand for more data, better connections, and uninterrupted service. In 2016, smartphones, tablets, and mobile-enabled PCs consumed 1.8 Exabytes of data per month.[1] This explosion of mobile data consumption is happening at a staggering pace. Mobile data traffic is expected to grow from an estimated 5.1 Gigabytes per smartphone each month in 2016 to a projected 25 Gigabytes by 2020. This increase in consumption is the direct result of the integral role a wireless connection plays in the ways Americans work and live.

The rise of ubiquitous mobile devices tracks with the growing capabilities of more advanced mobile networks. For carriers to keep up with consumers' demand for data, large scale buildouts are underway to densify and upgrade networks across the country. These upgrades to next-generation—and, soon, 5G-capable networks—are expected to create up to three million jobs and result in $275 billion in network investments over the next seven years. Once these networks are in place, they are expected to create 22 million jobs and produce up to $12.3 trillion of goods and services by 2035.

Addressing consumer demand for mobile data and creating jobs will require hundreds of thousands of new cell sites on new and existing utility poles, light poles, and other structures like buildings and towers. S&P Global Market Intelligence estimates that between 100,000 and 150,000 small cells will be constructed by the end of 2018, and that small cell deployments are expected to reach 455,000 by 2020 and nearly 800,000 by 2026.

NATIONAL LEADERSHIP TO ADDRESS LOCAL HURDLES TO INFRASTRUCTURE DEPLOYMENT

The FCC and Congress are fully aware that the 5G future, and all of the accompanying economic benefits, are imperiled by a patchwork of burdensome and inconsistent local siting requirements that impact a carrier's ability to effectively deploy new towers and small cells. Unless federal regulations keep pace with the rapid growth of data consumption and the need to build a broadband infrastructure capable of meeting those needs, challenges will continue to leave many Americans on the wrong side of the digital divide.

In April 2017, the Federal Communications Commission ("FCC" or "Commission") declared its intent to address one of the most significant sources of cost, delay, and unpredictability in the infrastructure deployment process: fees issued by Tribal Nations. Currently, federal law obligates carriers to use reasonable and good faith efforts to identify, contact, and to some extent "consult" with interested Tribal Nations when deploying wireless infrastructure, even when construction occurs outside Tribal lands or on existing public rights-of-way. While it is critical to preserve and protect bona fide Historic Property, the FCC's current system does not effectively protect Tribal artifacts and diverts funds from actual deployment. The FCC must find a means of protecting legitimate Tribal interests while encouraging investment.

[1] Statistics included in the Executive Summary are cited with accompanying sources in the body of the document.

This report explores how the FCC's National Historic Preservation Act of 1966 ("NHPA") compliance regime impacts wireless deployments and broadband infrastructure investment. Under the FCC's rules, individual Tribes and Tribal representatives may exert vast influence on the scope, size, location, and cost of many siting projects, including instances when wireless carriers and others construct towers or install antennas on existing structures.

Under current rules, carriers notify Tribes of proposed deployments through the FCC's Tower Construction Notification System ("TCNS"). This provides interested Tribes with an opportunity to review the project and its potential impact on Historic Property. Any Federally-recognized Tribe has an opportunity to designate geographic areas where they claim a general historical interest. There is no limitation on the scope of the areas these Tribes can designate, and indeed, many Tribes designate entire states, including major metropolitan areas with little or no areas with undisturbed ground. Moreover, multiple Tribes may designate the same area as one of historical interest. More than 30 Tribes, for example, have designated Chicago as an area of interest. Once designated, it is common practice for the Tribes that have flagged interest in a certain area to charge an initial "identification" fee to determine whether the Tribe has a concern with a specific location within their areas of interest. Once again, there are no limitations on the fees the Tribes may attempt to impose or any real constraint on the amount of time Tribes may take to reach a determination if there is any actual impact to a Tribal interest.

Carriers report that it is rare for a Tribe, however well-intentioned, to engage in substantive consultations after the initial "identification" fee is assessed and paid. Although paying Tribal fees is not required by the NHPA or the Advisory Council on Historic Preservation's implementing regulations, the Commission often will not allow a deployment to progress until "identification" fees are paid and positive responses are received from every Tribe that has identified the area as one of potential interest. This has resulted in extensive fee payments and significant deployment delays, often with no apparent impact on potential historic artifacts. Indeed, in researching this paper, CCA has not found a single instance in which a tribe has required a wireless carrier to move or modify a project.

WORKING WITH TRIBAL NATIONS BEFORE DEPLOYING WIRELESS INFRASTRUCTURE

To illustrate a carrier's journey through the NHPA and Tribal review process, the report introduces two hypothetical competitive carriers: 1) a regional carrier, Rolling Hills Wireless, serving consumers in several Western states whose few populous service areas quickly taper off into sprawling farmland and then into rugged wilderness, and 2) a nationwide carrier, City Center Wireless, focused on deploying dense networks in major urban centers.

In both cases, the carriers must work through the historic review process and are faced with excessive fees that threaten their individual deployments. Although hypothetical, these examples are informed by testimonials from CCA members who have faced fees ranging from $250 to $1,650 per Tribe per location. That is an average of more than $6,300 per project based on costs reported by CCA members in late 2016 to early 2017.

Following the two hypothetical carriers' paths through their deployment attempts demonstrates how the current rules are harming broadband deployment and highlights the urgent need for reform. The report acknowledges several ways to address the issue, including but not limited to creating commonsense deadlines for historic review milestones, clarifying whether and when Tribal fees are mandatory, and continuing to monitor Tribal fee increases.

If the FCC or Congress is looking to remove some bureaucratic red tape, look no further than the recommendations provided herein. Mandating some firm rules to address timing and cost issues stemming from the Tribal consultation process will make a big difference in spurring advanced mobile services and ensuring that Historic Property is actually protected.

Consider Rolling Hills Wireless, a regional carrier serving several Western states whose few populous service areas quickly taper off into sprawling farmland and then into rugged wilderness. Rolling Hills Wireless has just over 200,000 broadband subscribers and provides about 500 jobs in the small city where it is headquartered. Covering Rolling Hills Wireless service area with the limited resources typical of a competitive carrier is an immense challenge from any perspective. Because of the historically entrenched duopoly in the telecommunications marketplace[2] and the vast discrepancy in financial reserves between the largest two carriers and competitive carriers,[3] this carrier likely has a limited, mixed bag of spectrum, tepid roaming prospects, and limited access to premium devices. Rolling Hills Wireless has had to innovate quickly to optimize its resources, especially in rural areas.[4]

City Center , on the other hand, is a nationwide service provider focusing on deploying dense networks in major urban centers. This carrier would like to deliver 5G connectivity far before 2020, and is accordingly marshalling the administrative, capital, and material resources necessary to achieve this goal. Infrastructure costs weigh heavily on City Center Wireless' ability to effectively operate.

Each separate environment—urban, regional, rural, and rugged—calls for different equipment, perhaps many small antennas and distributed antenna systems ("DAS") in a dense city center, or fiber projects running down an interstate in a flat rural area. Maybe the rugged area can only be served by a large tower, which must rise above the tree line to work properly. 5G will require various types of spectrum[5] and an equally diverse assortment of supporting infrastructure.

One would think, considering the massive influx in demand for mobile data and the quality-of-life benefits

[2] The two largest nationwide providers command 71% of service revenues according to the Commission's *Nineteenth Mobile Competition Report*. Based on service revenues, the market share for regional service providers fell from close to 10 percent in 2012 to just 2 percent by year-end 2015. *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services,* Nineteenth Report, DA 16-1061, ¶ 19-20 (2016). AT&T and Verizon have held the lion's share of "greenfield" low-band spectrum since the government granted their predecessor companies substantial spectrum licenses in the 1980s. *See An Inquiry into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems,* Report and Order, 86 FCC 2d 469 (1981); *Amendment of the Commission's Rules to Allow the Selection from among Mutually Exclusive Competing Cellular Applications Using Random Selection or Lotteries Instead of Comparative Hearing,* Report and Order, 98 FCC 2d 175 (1984). These dominant low-band holdings have increased through a series of transactions, and the telecommunications market indicates a similar duopoly is developing in high-band spectrum. For example, last year Verizon was approved to lease XO Communications' ("XO") LMDS spectrum licenses in 28 GHz and 39 GHz bands, covering 65% of the points of presence ("POPs") for the LMDS service band in the top 60 markets nationwide, with a potential option to acquire that spectrum. *See Application of Cellco Partnership d/b/a Verizon Wireless and Nextlink Wireless, LLC For Consent to Long-Term De Facto Transfer Spectrum Leasing Arrangement,* ULS File No. 0007162285, Memorandum Opinion and Order, DA 16-838 (WTB 2016).

[3] From a revenue perspective, the telecommunications marketplace is solidly dominated by AT&T and Verizon. *See, e.g., See RCR* Wireless News, "AT&T and T-Mobile Q3 results, Sprint impact" (Oct. 29, 2015), *available at* http://www.rcrwireless.com/rcrtv/att-and-t-mobile-q3-results-sprint-impact-carrier-wrap-episode-2-tag2; *see also* Forbes, "The U.S. Wireless Industry: 2015 In Review" (Dec. 30, 2015), *available at* http://www.forbes.com/sites/greatspeculations/2015/12/30/the-u-s-wireless-industry-2015-in-review/#512651cc2110.

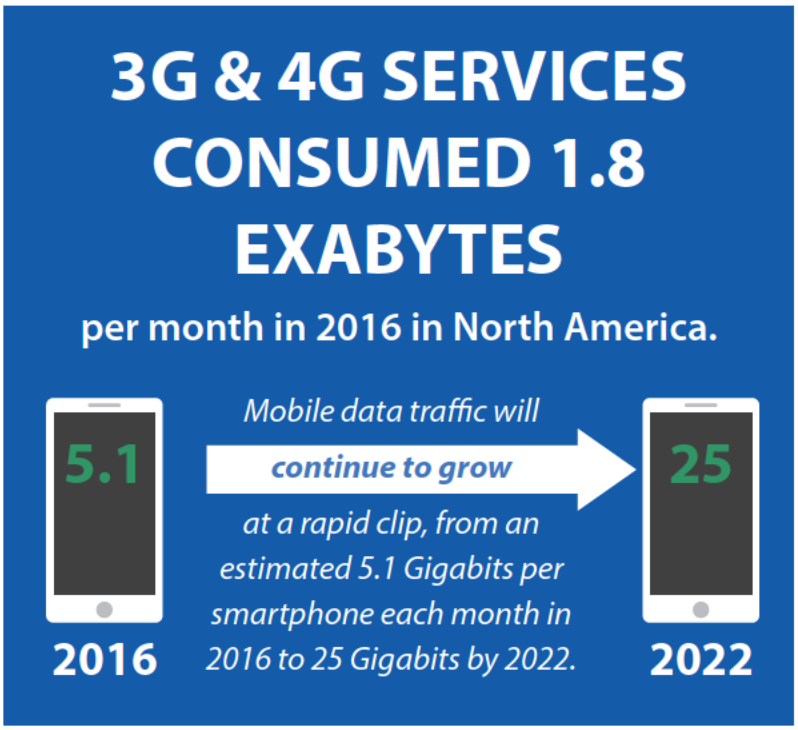
[4] *See, e.g.,* Letter from Trey Hanbury, Counsel to T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 12-269, 6-7 (Apr. 23, 2015) ("[T]he number of base stations required to provide service and, thus, the deployment expenses for any given area, vary dramatically by frequency band. T-Mobile, for example, has more cell sites in operation nationwide than Verizon and almost as many as AT&T, despite covering a smaller geographic footprint and holding less spectrum on a MHz-pops basis than either of the two dominant carriers. T-Mobile must deploy more sites to cover a smaller area (at greater cost) because of the propagation characteristics of its primarily mid-band spectrum holdings. . . only those few carriers with significant low-band spectrum holdings are widely deploying networks in rural areas"); *see id.* at 7 ("Sprint has also studied the network deployment costs associated with different spectrum bands. It found that build-out requirements using high-band spectrum were up to 13 times higher in rural areas, resulting in enormous cost differentials for carriers and a competitive advantage for established providers") citing Lawrence R. Krevor et al., *The Imperative for a Weighted Spectrum Screen: Low-, Mid-, and High-Band Frequencies Are Not Free Substitutable Market Inputs,* attached to Letter from Lawrence R. Krevor, Vice President, Sprint Corp., to Marlene H. Dortch, Secretary, FCC, Docket No. 12-269 (rel. Apr. 4, 2014).

[5] *See Use of Spectrum Bands Above 24 GHz For Mobile Radio Services,* Report and Order and Further Notice of Proposed Rulemaking, GN Docket No. 14-177, et al., FCC 16-89, ¶ 9 (acknowledging 5G mobile services will likely utilize bands above 24 GHz supplemented by lower bands "to ensure ubiquitous coverage and continuous system-wide coordination").

accompanying those data capabilities, that government and local entities are rushing to facilitate tower and antenna projects. In Competitive Carriers Association ("CCA")[6] members' experience, this is far from the case. For a small business like Rolling Hills Wireless or a corporate heavyweight like City Center Wireless, building a supporting structure or installing antennas and securing permission to deploy is comparable to the worst imaginable DMV trip: carriers experience new, unanticipated requirements between reviewing parties, along with surprise and sometimes recurring fees unrelated to review costs. All carriers—large, small, rural, and nationwide—need permission from a multitude of federal agencies as well as state and local authorities. It's likely that deploying any structure or equipment—a tower, an antenna, et cetera—will take months or years longer than anticipated, and will cost far more than expected.[7]

I. Meeting America's Demand for Next-Generation Wireless Networks Depends on Streamlined Deployment Processes and Reasonable Fees.

Infrastructure costs and delays can cause economic and innovation challenges for America's future. Policymakers must not forget that infrastructure deployment is needed to meet skyrocketing demand for mobile data. To provide context, 3G and 4G services—between smartphones, tablets, and mobile-enabled PCs—consumed 1.8 Exabytes per month in 2016 in North America. Mobile data traffic will continue to grow at a rapid clip, from an estimated 5.1 Gigabits per smartphone each month in 2016 to 25 Gigabits by 2022.[8] This increase is a direct response to the absolute necessity for advanced wireless services in the way Americans work and live, from calling 911 during an emergency or streaming content online[9] for education or leisure to breaking barriers in healthcare and automation. Because each network "generation" transition has created a massive influx in jobs and economic



[6] CCA is the nation's leading association for competitive wireless providers and stakeholders across the United States. CCA's membership includes nearly 100 competitive wireless providers ranging from small, rural carriers serving fewer than 5,000 customers to regional and national providers serving millions of customers. CCA also represents approximately 200 associate members including vendors and suppliers that provide products and services throughout the mobile communications supply chain.

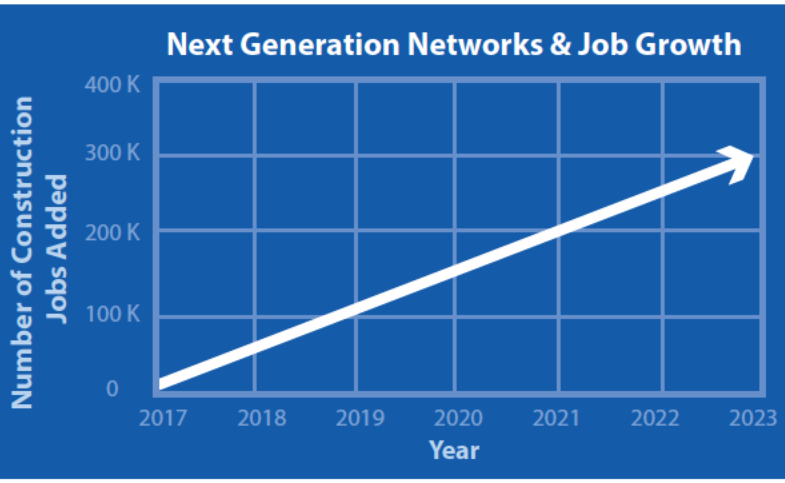
[7] *See, e.g.*, Colin Gibbs, Small Cells: Still Plenty of Potential despite Big Challenges, (Sept. 1, 2016) http://www.fiercewireless.com/wireless/small-cells-still-plenty-potential-despite-big-challenges (noting that "the entire process required to install a single cell can now take two years or more…rather than several months").

[8] *See* Ericsson, Ericsson Mobility Report at 12 (Nov. 2016), https://www.ericsson.com/assets/local/mobility-report/documents/2016/ericsson-mobility-report-november-2016.pdf). Mobile data use grew 63 percent in 2016, and 18-fold over the last five years; mobile traffic is expected to increase seven-fold over the next five years. *See Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2016-2021 White Paper,* Cisco (Feb. 9, 2017).

[9] With regard to content, mobile video traffic now accounts for more than half of all mobile data traffic, and accounted for approximately 55% of all mobile data traffic in 2015. *See* Cisco, "Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2015 - 2020" (Feb. 1, 2016), *available at* http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-c11-520862.html.

stimulus,[10] America's transition to 5G is expected to produce the biggest economic gains yet. One study estimates that players in the mobile broadband ecosystem will invest as much as $275 billion in next-generation networks over the next seven years. $93 billion of that total is expected to be spent on construction, with the rest allocated toward network equipment, engineering, and planning.[11] Buildout is also expected to create up to three million jobs, encompassing approximately 50,000 jobs per year in construction alone.[12] Once these networks are in place, they are expected to create 22 million jobs and to produce up to $12.3 trillion of goods and services by 2035.[13]

"Buildout is also expected to create up to three million jobs, encompassing approximately 50,000 jobs per year in construction alone."



Smaller and more remote communities like the ones served by Rolling Hills Wireless are uniquely situated to share in these economic benefits, perhaps more so than urban communities. In areas where network construction creates first-time broadband users, the U.S. could see "an additional $90 billion in GDP, and 870,000 in job growth."[14] In "small to medium-sized cities with a population of 30,000 to 100,000," 5G deployment could create, respectively, "300 to 1,000 jobs" per city. Companies like Rolling Hills Wireless already contribute a great deal to local and national markets; a recent report indicates that small rural broadband providers' investments and operations contribute $24.1 billion to the economies of the states in which they operated in 2015, comprising $17.2 billion through their own operations and $6.9 billion through the follow-on impact of their operations.[15] This report also found that the rural broadband industry supported 69,595 rural and urban jobs in 2015, comprising jobs generated by rural providers as well as employment generated by purchases of rural providers' goods and services.[16]

[10] In 2012, the benefits of 4G were estimated to be so great—"[A] 10 percentage point gain in penetration of a new generation of wireless technology in a given quarter leads to a 0.07 percentage-point gain in employment in the following quarter and continuing gains in subsequent quarters." That one study estimated any national job creation strategy "should include or encourage appropriate measures to accelerate the deployment of 4G infrastructure." Further, "[t]he adoption of cell phones and other mobile devices supported by a shift from 2G to 3G Internet and wireless network technologies led to the creation of nearly 1.6 million new jobs across the United States, between April 2007 and June 2011 – even as total private sector employment fell by nearly 5.3 million positions." *See* Robert J. Shapiro & Kevin A. Hassett, *The Employment Effects of Advances in Internet and Wireless Technology: Evaluating the Transitions from 2G to 3G and from 3G to 4G* (January 2012), http://www.sonecon.com/docs/studies/Wireless_Technology_and_Jobs-Shapiro_Hassett-January_2012.pdf.

[11] Accenture Strategy, How 5G Can Help Municipalities Become Vibrant Smart Cities, 3 (rel. Jan. 12, 2017), https://newsroom.accenture.com/content/1101/files/Accenture_5G-Municipalities-Become-Smart-Cities.pdf.

[12] *Id*. at 4.

[13] *Landmark Study on Impact of 5G Mobile Technology Released,* QUALCOMM (Jan. 17, 2017), ("The 5G value chain itself is seen as generating up to $3.5 trillion in revenue in 2035, supporting as many as 22 million jobs. Over time, 5G will boost real global GDP growth by $3 trillion dollars cumulatively from 2020 to 2035, roughly the equivalent of adding an economy the size of India to the world in today's dollars").

[14] *Id*.

[15] The Hudson Institute, "The Economic Impact of Rural Broadband," 12 (April 2016) ("Hudson Study"), *available at* https://s3.amazonaws.com/media.hudson.org/files/publications/20160419KuttnerTheEconomicImpactofRuralBroadband.pdf.

[16] *Id*. at 13

Addressing consumer demand for mobile data and creating jobs will require hundreds of thousands of new cell sites on new and existing utility poles, light poles, and on other structures like buildings and towers. To provide some perspective, "deploying ten small cells in a coverage area that could be served by a single macrocell could result in a tenfold increase in capacity while using the same quantity of spectrum."[17] These small cells will increase capacity and will allow better in-building propagation as carriers continue to build out their 4G networks, as well as in upcoming 5G deployments. S&P Global Market Intelligence estimates that between 100,000 and 150,000 small cells will be constructed by the end of 2018, and that small cell deployments are expected to reach 455,000 by 2020 and nearly 800,000 by 2026.

The race to deploy is already in full swing. AT&T has reported that the substantial majority of its infrastructure deployments over the next five years will be small cell sites. In addition, Verizon is deploying small cells in several urban areas, including New York, Chicago, Atlanta, and San Francisco. Sprint announced last year a goal of deploying 70,000 small cells within two years.[18] C Spire is developing deployment plans for small cells, wireless local loop, and fixed wireless and last-mile fiber replacement for its 5G infrastructure deployment. C Spire is conducting product trials with full service offerings slated for a 2018 rollout. Another regional carrier is actively engaged with state legislators to develop deployment-friendly siting laws, and another CCA member in the design phase of its first small cell projects is in the process of determining whether the project is feasible under a suffocating local code. In other words, mobile broadband providers have ramped up deployment efforts and the proverbial iron is hot. Addressing deployment costs and barriers should be a priority for both the FCC and on Capitol Hill.

II. Enabling Next Generation Wireless Broadband Requires National Leadership to Address Local Hurdles to Infrastructure Deployment.

The FCC and Congress are fully aware that the 5G future is imperiled by this patchwork of burdensome siting requirements, and they are gearing up to take action. For example, Chairman Pai's Digital Empowerment Agenda[19] is a welcome, detailed show of support for carriers eager to see federal leadership on infrastructure issues. The Commission's proceeding[20] addressing Mobilitie's Petition for Declaratory Ruling indicates that the Commission may soon use its statutory power to preempt certain state and local practices that slow or stop broadband deployment. This attention is urgently needed; as noted by Steven K. Berry before Congress, "[d]elay in addressing broadband infrastructure challenges will continue to leave many Americans on the wrong side of the digital divide. Areas which remain unserved or underserved, particularly those in rural America, risk being left behind by today's technological revolution."[21] Rep. Marsha Blackburn, Chairman of the House Energy and Commerce Committee, Subcommittee on Communications and Technology, has similarly acknowledged that Congress "must cut through

[17] Public Notice, Comment Sought on Streamlining Deployment of Small Cell Infrastructure By Improving Wireless Siting Policies, WT Docket No. 16-421, p 4 (Dec. 22, 2016) ("Mobilitie PN")

[18] *Id*. at 4-5.

[19] Remarks of FCC Commissioner Ajit Pai at The Brandery, "A Digital Empowerment Agenda", Cincinnati, OH (rel. Sep. 13, 2016), *available at* https://apps.fcc.gov/edocs_public/attachmatch/DOC-341210A1.pdf; *summary available at* https://apps.fcc.gov/edocs_public/attachmatch/DOC-341210A2.pdf

[20] *See Comment Sought on Streamlining Deployment of Small Cell Infrastructure by Improving Wireless Facilities Siting Policies; Mobilitie, LLC Petition for Declaratory Ruling*, Public Notice, DA 16-1427, WT Docket No. 16-421 (rel. Dec. 22, 2016) ("Wireless Public Notice"), *available at* https://apps.fcc.gov/edocs_public/attachmatch/DA-16-1427A1.pdf.

[21] Testimony of Steven K. Berry, President & CEO, Competitive Carriers Association, *Broadband: Deploying America's 21st Century Infrastructure*, United States. Cong. House. Committee on Energy and Commerce, Subcomm. On Communications and Technology, 115th Cong. 1st sess., at 4 (Mar. 21, 2017), http://docs.house.gov/meetings/IF/IF16/20170321/105740/HHRG-115-IF16-Wstate-BerryS-20170321.pdf.

red tape by streamlining permitting processes" regarding infrastructure.[22]

In April 2017, the FCC declared its intent to address one of the most significant sources of cost, delay, and unpredictability in the infrastructure deployment process: fees issued by Tribal Nations. Dubbing April "Infrastructure Month," the FCC adopted a Notice of Proposed Rulemaking on April 21, 2017, seeking comment on numerous National Historic Preservation Act ("NHPA") process reforms, including the need to clarify when, if ever, deploying carriers must pay fees charged by Tribal Nations to fulfill historic review obligations, and what fee amounts may be appropriate.[23] This item, and **MOBILE NOW** legislation,[24] are the most promising, clearly-articulated precursors to infrastructure-related regulatory relief in years. Competitive carriers are hopeful that Congress and the Commission will address the many pain points and unnecessary expenditures often rooted in the Section 106 compliance process.

MOBILE NOW

The draft MOBILE NOW legislation (S. 19) includes language to facilitate broadband infrastructure installation by requiring the Department of Transportation to ensure that states receiving federal-aid highway funds:

1. coordinate the state's broadband infrastructure right-of-way needs,
2. register broadband infrastructure entities that seek to be included in those coordination efforts,
3. coordinate statewide telecommunication and broadband plans and state and local transportation and land use plans, and
4. minimize repeated excavations.

To briefly summarize the applicable legal framework, federal law obligates carriers to use reasonable and good faith efforts to identify, contact, and to some extent "consult" with interested Tribal Nations when deploying wireless infrastructure outside Tribal lands. It is important to highlight that this obligation applies to all areas of the country, both rural and dense urban areas, not just Tribal lands or historic sites. Ideally, the parties can work together to determine whether a siting project would impact Tribal ancestral land or property in or eligible for inclusion in the National Register and mitigate adverse effects.[25] The FCC oversees the consultation process in many respects and is ultimately responsible for complying with the NHPA, but primarily mobile carriers are in charge of making sure the process goes smoothly, including dealing with any fees Tribal Nations might assess. The current practice is for Tribes to charge up-front fees, ostensibly to determine whether the siting project would have an adverse effect on an eligible Historic Property. Then, Tribes determine whether additional Tribal oversight—and, usually, additional fees—are appropriate before a carrier like City Center Wireless or Rolling Hills Wireless actually deploys. Even though the FCC's rules do not require payment of Tribal fees,[26] competitive carriers report that the FCC will not allow a project to proceed until fees are paid and the Tribes declaring an interest have concurred that a project poses no adverse effects. Competitive carriers also indicate that the NHPA compliance process imposes significant costs and does little to protect legitimate Tribal interests.

[22] Opening Statement of Hon. Marsha Blackburn, *Broadband: Deploying America's 21st Century Infrastructure*, United States. Cong. House. Committee on Energy and Commerce, Subcomm. On Communications and Technology, 115th Cong. 1st sess., at 1 (Mar. 21, 2017), http://docs.house.gov/meetings/IF/IF16/20170321/105740/HHRG-115-IF16-MState-B001243-20170321.pdf.

[23] *See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Notice of Proposed Rulemaking and Notice of Inquiry, WT Docket No. 17-79, FCC 17-38 (WTB 2017) ("*Wireless Accelerating Broadband NPRM*").

[24] The draft MOBILE NOW legislation (S. 19) includes language to facilitate broadband infrastructure installation by requiring the Department of Transportation to ensure that states receiving federal-aid highway funds: (1) coordinate the state's broadband infrastructure right-of-way needs, (2) register broadband infrastructure entities that seek to be included in those coordination efforts, (3) coordinate statewide telecommunication and broadband plans and state and local transportation and land use plans, and (4) minimize repeated excavations.

[25] 2004 NPA, §§ IV.B, IV.C. *See also* 54 U.S.C. § 302706(b).

[26] Neither the NHPA nor American Council on Historic Preservation's (ACHP) implementing rules require payment of Tribal fees or indicate paying Tribal fees is required to comply with the NHPA; both regulations are silent on that account. See Accelerating Broadband NPRM ¶ 43.

Under current rules, nothing restricts the level of Tribal fees demanded, and they are rising. The total fees required by Tribes for identification of Historic Properties now exceeds an average of $6,300 per new small cell site, according to CCA's membership. The FCC recently made public that "the average cost per Tribal Nation charging fees increased by 30% and the average fee for collocations increased by almost 50% between 2015 and August 2016."[27] These costs likely will continue to rise as the number of small cell sites required to meet capacity demands increases and the costs for the network hardware, such as antennas and radios, continues to decrease. The costs of consulting with Tribes under the FCC's rules in some areas of the United States exceed 50% of the combined cost of the other elements of the project, such as the support poles, antennas, radios, backhaul, and power. This is unsustainable, especially considering the costs are for fees that precede comprehensive analysis of whether Tribal property might be affected by a given project.

Tribes also feel the strain. Tribal lands, where most Tribes operate, are among the most underserved areas in the country.[28] Tribes without reliable or fast broadband connectivity cannot communicate as efficiently or quickly as needed with carriers and the FCC during the infrastructure deployment process, which often results in project delays. Tribal governments reshuffle at set intervals, but carriers often have a difficult time determining—between the 566 Federally-recognized Tribes, all of which have a unique government structure—when those leadership changes occur. Worse, Tribes with legitimate interests in certain projects are undercut by the Tribes that take advantage of the loopholes and ambiguities throughout the legal framework outlining their right to "consult" by demanding outsized and likely unnecessary Tribal fees.

The easiest way to understand exactly how Tribal review rules harm deployment is to actually navigate them alongside competitive carriers like Rolling Hills Wireless and City Center Wireless.

Rolling Hills

Let's say that Rolling Hills Wireless is looking to create a network which involves mounting small cells on new poles, including a new pole and cell in a 10-year-old utility right-of-way ("ROW") in Townsville, which is centrally located in a Midwestern state. Townsville is small, but not entirely rural. It boasts a community college and K-12 institutions—the kind of place that could benefit from better, faster broadband. Rolling Hills Wireless would like to install a new utility pole in a ROW near a sidewalk abutting a strip mall and the Townsville Middle School, which just received a grant for a tablet pilot program in partnership with Rolling Hills Wireless.

Rolling Hills Wireless envisions the project will look something like this:

[27] Accelerating Broadband NPRM ¶ 35.

[28] *See, e.g., Connect America Fund; Universal Service Reform—Mobility Fund*, Report and Order and Further Notice of Proposed Rulemaking, WC Docket No. 10-90, WT Docket No. 10-208, FCC 17-11, ¶ 31 (recognizing "the relatively low level of telecommunications deployment, and distinct connectivity challenges on Tribal lands" and reserving "at least $340 million from the [Mobility Fund II] budget" to promote much-needed broadband deployment on Tribal lands); *see also Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes*, Policy Statement, 16 FCC Rcd 4078, 4080-81 (2000) (recognizing the Commission's general trust relationship with, and responsibility to, federally recognized Tribes); FCC, *Connecting America: The National Broadband Plan*, at 152 (rel. Mar. 16, 2010), https://transition.fcc.gov/national-broadband-plan/national-broadband-plan.pdf ("Many Tribal communities face significant obstacles to the deployment of broadband infrastructure, including high buildout costs, limited financial resources that deter investment by commercial providers and a shortage of technically trained members who can undertake deployment and planning."); *Federal-State Joint Board on Universal Service*, Twelfth Report and Order, Memorandum Opinion and Order, and Further Notice of Proposed Rulemaking, 15 FCC Rcd 12208, 12226-27, ¶ 32 (2000) (describing various characteristics of Tribal lands that may increase the cost of entry and reduce the profitability of providing service).

City Center

City Center Wireless, on the other hand, just won a small cell initiative bid in a coastal state capital city, "Metropolis." This is a high-profile project involving innovative network architecture, designed to bring unprecedented broadband speeds to Metropolis. City Center Wireless will start the project by deploying 29 nodes, some on new poles and some on existing poles, in one of Metropolis' older neighborhoods. Since this network project has Metropolis' blessing, City Center Wireless hopes securing local approvals will go smoothly but is less hopeful about Tribal interest. City Center Wireless will not know the extent of costs or delays due to Tribal interest until the requisite Tower Construction Notification System ("TCNS") notices are posted. **This uncertainty means City Center Wireless has a difficult time communicating possible costs to partner vendors and Metropolis officials.**

City Center Wireless envisions the project will look something like this:

III. Working with Tribal Nations to Review Historic Properties.

The National Historical Preservation Act of 1966 ("NHPA") requires the federal government to take into account the effects of "federal undertakings" on historic properties.[29] This is commonly called the "Section 106 process," due to the section numbering in the original legislation. The FCC has determined that construction of wireless towers and antennas is a federal undertaking,[30] even though the government does not fund, license, or separately approve small wireless deployments. Accordingly, even non-licensee private parties building towers are required to undergo the Section 106 process as their actions are deemed to be a federal undertaking if they intend to install antennas that use spectrum subject to FCC wireless licenses.[31]

The requirement for FCC wireless license holders to involve Tribal representatives and individual Tribes when constructing towers or installing antennas on new and existing structures arises from the NHPA and the FCC's two programmatic agreements adopting a set of FCC-specific procedures for NHPA compliance.[32] The FCC executed the National Programmatic Agreement in 2004 ("2004 NPA),[33] as well as the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas which was recently amended in 2016 ("2016 NPA") (together, the "NPAs"). The FCC has also touched on Section 106 in rulemaking proceedings.[34]

The Tribal review process applies to new infrastructure deployment anywhere in the nation, not just on Tribal lands or reservations. Even where projects are exempt under the NPAs, consulting with Tribal Nations may still be required.[35] Accepting any requests for Tribal participation is an unlettered requirement for NHPA compliance.[36]

[29] A federal "undertaking" under NHPA includes projects, activities, or programs that "requir[e] a Federal permit, license, or approval[.]" 54 U.S.C. § 300320(3). See also 40 CFR § 1508.18(b).

[30] *See 20 FCC Rcd 1073 (2004); Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process, 20 F.C.C. R.* 1703 (2004), *aff'd CTIA v. FCC*, 466 F.3d 105 (D.C. Cir. 2006) ("2004 NPA")

[31] NHPA rules do not apply for the construction of utility poles used to carry electricity or wireline communications, even if it is the same size and type of pole commonly used for small cell installations. Neither the FCC nor other federal government agencies consider construction of this type to be a federal undertaking. Similarly, a pole installed for a Wi-Fi network is not subject to NHPA while the same pole for a small cell using licensed spectrum is subject to the NHPA and the Tribal review process. *See id*. II.A.1; *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies, Report and Order*, 29 FCC Rcd. 12865 (2014); Erratum, 30 FCC Rcd. 31, ¶ 91 & fn. 248 (2015) ("2014 Infrastructure Order"), *aff'd Montgomery County v. FCC*, 811 F.3d 121 (4th Cir. 2015).

[32] The NPAs have the legal authority of FCC rules and partially replace the rules promulgated by the ACHP, with which any NPAs must be consistent. 36 C.F.R. § 800.14.

[33] *See* 2004 NPA; *see also Wireless Telecommunications Bureau Announces Execution of First Amendment to the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas,* Public Notice, DA 16-900, WT Docket No. 15-180 (rel. Aug. 8, 2016) ("2016 NPA"); 47 C.F.R. pt. 1 app. B; *see also Wireless Telecommunications Bureau Announces Execution of Programmatic Agreement with Respect to Collocating Wireless Antennas on Existing Structures*, Public Notice, 16 FCC Rcd. 5574 (WT 2001).

[34] *See, e.g.,* 2014 Infrastructure Order; *see also Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review*, Declaratory Ruling, 24 FCC Rcd. 13994 (2009) ("2009 Declaratory Ruling"), *aff'd, City of Arlington v. FCC*, 668 F.3d 229 (5th Cir. 2012), *aff'd*, 133 S.Ct. 1863 (2013).

[35] *See* 2004 NPA at 2 ("the execution and implementation of this Nationwide Agreement…do not attempt to abrogate the rights of Indian Tribes or NHOs to consult…regarding the construction of facilities" and "will not preclude [Tribes] from filing complaints with the Commission…); *see also id*. § IV.A-B (notwithstanding exclusions in Section III, the "Commission recognizes its responsibility to carry out consultation with any Indian Tribe or NHO that attaches religious and cultural significance to a Historic Property if the property may be affected by a Commission undertaking…" which involves the "initial step" to use "reasonable and good faith efforts to identify any Indian Tribe or NHO that may attach religious and cultural significance" that may be implicated); *see also* 2016 NPA at 2 ("the terms of this amendment to the Collocation Agreement do not preclude Indian Tribes or NHOs from consulting directly with the FCC or its licensees, tower companies, and applications for antenna licenses when collocation activities off Tribal lands may affect historic properties of religious and cultural significance to Indian Tribes or NHOs…); *see, e.g., id* § III.A.4 (providing that an collocation on a tower constructed on or before March 16, 2001 is not required to undergo Section 106 review unless certain parties, including Tribes, object in writing).

[36] The FCC's definition of "Historic Property" includes "[a]ny prehistoric or historic district site, building, structure, or object included in, or eligible for inclusion in the National Register maintained by the Secretary of the Interior. …The term includes properties of traditional religious and cultural importance to an Indian Tribe … that meet the National Register criteria." 2004 NPA, II.A.9.

Tribal consultation often takes place concurrently with other compliance measures, such as navigating local requirements and other compliance requirements tied to NHPA or the National Environmental Protection Act ("NEPA"); in many instances, however, a deploying carrier must wait until after said local permits or approvals are granted. Rolling Hills Wireless and City Center Wireless, then, might take first steps to address NHPA compliance after determining whether or not their projects are exempt under an NPA or another FCC rule.

Rolling Hills

Recall that the project in Townsville involves mounting a small cell on a new utility pole near a strip mall abutting a sidewalk near the Townsville Middle School in a ROW; Rolling Hills Wireless' project is one of its first small cell deployments to beef up its networks to meet rising consumer data demands.

City Center

Recall also that City Center Wireless' deployment in Metropolis is part of a cutting-edge small cell network relying on densely-deployed small cells, designed to lay the groundwork for 5G technology.

First, each carrier consults the 2016 NPA. Rolling Hills Wireless and City Center Wireless determine that their respective projects are not excluded from Section 106 review; even though small cells are involved, the 2016 NPA does not cover collocations on new structures or structures near historic areas. Rolling Hills Wireless sees that this project is covered by the 2004 NPA—specifically, a clause excluding from full Section 106 review facilities in a ROW designated for communications purposes.[37] This is of limited utility, however, since the 2004 NPA exempted new poles in a utility right-of-way from certain aspects of the historic review process by state historic preservation offices but specifically did not extend the exemption to the Tribal review process.[38] Additionally, the FCC's 2014 Infrastructure Order excluded poles in utility rights-of-way from some environmental review regulations under NEPA but specifically retained Section 106 requirements,[39] including new poles in rights-of-way.[40]

The applicable rules do not help City Center Wireless, the larger carrier, which must complete historic review for each new node in their deployment plan.[41] City Center Wireless sees that all 29 deployments in its small cell project will be subject to the Tribal review process as all are within 250 feet from a historic district or involve new poles in a communications ROW.

Phase I: Initial Tribal Identification Over TCNS.

Because neither Rolling Hills Wireless' nor City Center Wireless' projects are exempt from historic review under the 2016 NPA and the applicable exclusions under the 2014 NPA, both carriers must notify Tribes so that they may "identify" whether the project represents a risk to Tribal property or ancestral lands.[42] To do so, Rolling Hills Wireless and City Center Wireless will follow the FCC's two-step process to work with "interested" Tribes.

[37] 2004 NPA § III.E.

[38] *Id.*

[39] 2014 Infrastructure Order at fn. 163

[40] *Id.* ¶ 18-19.

[41] The FCC's rules do not currently provide for "batch" application review, although the *Wireless Accelerating Broadband NPRM* seeks comment on whether "batch" application review is appropriate for NHPA compliance. *See Wireless Accelerating Broadband NPRM* ¶¶ 62-63.

[42] 2004 NPA § IV.

First, the carriers notify Tribes through the FCC's TCNS to determine whether individual Tribes are interested in a particular site. All Federally-recognized Tribes have the opportunity to designate geographic areas (typically by county or state) in the TCNS where they claim a general historical interest. If an applicant to build a tower or antenna submits plans through TCNS that is located in the county or state pre-selected by a Tribe, the FCC notifies the corresponding Tribe(s) of the prospective project.

That is when each carrier runs into the first slew of Tribal fees. In the weeks that follow, Rolling Hills Wireless receives 12 requests, from 12 different Tribes, for an "identification" fee, each for around $500. Rolling Hills Wireless is surprised at the volume of fee requests it has received and visits a few of the Tribes' websites. Some Tribes requesting initial fees at least describe on their websites a historic interest in the area, but some do not appear to be connected to Townsville at all.

City Center Wireless receives fee requests from only five Tribes, but those Tribes want to charge City Center Wireless on a per pole basis. If that happens, project costs can balloon to tens, perhaps hundreds, or thousands of dollars. City Center Wireless' compliance expert spends hours negotiating with each Tribe. Four of the Tribes are willing to review the deployment on a broader "network basis" and charge a flat fee encompassing a review of all 29 small cells. One tribe, however, insists on charging a "per pole" fee. In the end, City Center Wireless' bill from Tribal fees equals $19,000, with $14,500 going to one tribe charging per pole. Because City Center Wireless employs a skilled negotiator as its compliance officer, it is lucky. Usually, it is far more likely that a Tribe will charge "per pole" to review a project, in line with past custom. Dense 5G-style networks which rely on small cell deployments are a relatively new development; before recently, carriers typically deployed towers or macro sites.

Rolling Hills Wireless and City Center Wireless separately question whether Tribes are correctly assessing up-front fees. The carriers understand that, under law and custom, Tribes are allowed to express an interest in receiving notice of construction projects well outside of their territorial jurisdiction. These determinations are based on a Tribe's historic connections to those areas, without controls as to which Tribes designate which geographic regions for which they receive notification. However, it is within a Tribe's sole discretion to select its geographic areas of interest in TCNS, and it may alter those areas of interest at any time.

CCA members understand that a Tribe has many legitimate reasons to express an interest in an area outside their traditional lands. Tribes have historic territories that differ from their current residence or reservation location. Many Tribes were forcibly relocated to different areas and have experienced travels or wars that occurred outside their historic homelands. Many Tribes, therefore, have burial grounds or other sacred places outside their current habitation that may not be identified on any publicly available maps. Accordingly, a Tribe may justifiably have interests in lands outside their current location. The FCC's process allows Tribes to designate an area of interest at either the state or county level.

Yet, the FCC's current system does not seem to be effectively protecting Tribal property and ancestral lands as much as it provides an opportunity for opportunistic parties to extract revenues from carriers.

Yet, the FCC's current system does not seem to be effectively protecting Tribal property and ancestral lands, Tribes rarely, if ever, request that a project be relocated, but are imposing economically unsustainable costs. This process has created a tremendous and unnecessary expense for carriers while diminishing legitimate Tribal interests. The FCC concedes in the *Wireless Accelerating Broadband NPRM* that Tribal fees and TCNS procedures are troubling and must be addressed.

The FCC states in the NPRM that:

TCNS data reveals that the average number of Tribal Nations notified per tower project increased from eight in 2008 to 13 in August 2016 and 14 in March 2017. Six of the 19 Tribal Nations claiming ten or more full states within their geographic area of interest in March 2017 had increased that number since August 2016, with three Tribal Nations claiming 20 or more full States in addition to select counties. In 2015, 50 Tribal Nations noted fees associated with their review process in TCNS; by March 2017, Commission staff was aware of at least 95 Tribal Nations routinely charging fees, including 85 with fees noted in TCNS and 10 that staff was aware of from other sources. This data further suggests that the average cost per Tribal Nation charging fees increased by 30% and the average fee for collocations increased by almost 50% between 2015 and August 2016.[43]

Between 2015 & August 2016

The average cost per Tribal Nation charging fees **increased by 30%** and the average fee for collocations **increased by almost 50%.**

Indeed, carriers report that it is exceedingly rare for a Tribe to engage in substantive consultations after the initial "identification" fee is assessed.[44] One carrier member reported that for approximately 20,000 sites for which it used the TCNS process since it was instituted in 2004, it did not encounter a single instance where substantive consultation was requested under the NPA when a Tribe identified a potential historic property affected by a tower or antenna installation. PTA-FLA, a wireless provider, filed a petition for declaratory ruling with the FCC in 2016 in which it noted that it "or its affiliates have sent out thousands of notices through the TCNS system over the years and have never received a single indication that any Indian burial ground or other sacred place was implicated."[45] Crown Castle, the nation's largest provider of wireless infrastructure, stated that "Crown Castle has never received any negative commentary from any Tribe throughout its history of TCNS filings."[46]

This disparity between the number of Tribes requesting up-front fees and the Tribes seeking substantive project review leaves the impression that many Tribes may be asserting interest and demanding fees in areas where their historical ties are tenuous. For example, one CCA member reports that a Tribe with roots in northern Wisconsin is demanding review fees for antenna installations on existing structures in Nassau County, New York. Another Tribe, whose own website describes its origins as the middle Ohio Valley with no mention of Florida, required $550 to consult on a new small cell in Ft. Myers, Florida, in the narrow strip between the highway and a parking lot. Neither the FCC nor other Tribes challenge the geographic designations for which Tribes express interest and require payment.

[43] *Wireless Accelerating Broadband NPRM* ¶ 35.

[44] Some Tribes request surveys or ethnographic reports as part of the identification process. One tribe with roots in the Rocky Mountains routinely requests ethnographic reports for antenna installations on existing structures in downtown Chicago, Illinois.

[45] Petition for Declaratory Ruling, PTA-FLA, Inc., at 6 (May 3, 2016).

[46] Comments of Crown Castle, WT Docket No. 15-180, at 3 (Sept. 28, 2015) ("Crown Castle Comments").

Worse still, as the FCC recognizes in the Wireless Accelerating Broadband NPRM, no NHPA or ACHP rule exists obligating carriers to pay "initial" Tribal fees or any other Tribal fee associated with the historic review, and paying any and all Tribal fees are inconsistent with ACHP guidance.[47] The first ACHP publication on fees was a 2001 Memorandum from the executive director:

> While **ACHP's** regulations encourage the active participation of Indian Tribes, they **do not obligate Federal agencies or applicants to pay for consultation.** If an agency or applicant attempts to consult with an Indian tribe and the tribe demands payment, the agency or applicant may refuse and move forward.[48]

The ACHP issued a similar statement in a 2008 handbook,[49] and again in 2012, stating that "[no] portion of the NHPA or the ACHP's regulations require[s] an agency or an applicant to pay for any form of Tribal involvement."[50] The FCC's NPAs implementing the ACHP's rules are silent on fees. In the Wireless Accelerating Broadband NPRM, the Commission asks stakeholders to assist in developing a comprehensive fee structure; in short, by asking for such broad industry comment, the Commission is acknowledging that a troubling regulatory vacuum exists concerning Tribal fees.

Exorbitant Tribal fees, such as those experienced by Rolling Hills Wireless and City Center Wireless, are assessed without statutory backing and seemingly far outside the purpose and scope of the NHPA. The NHPA is designed to protect historic properties or those eligible for inclusion on the National Register. However, the statutory definition or historic properties is unclear.[51] The mere presence of Tribal artifacts or burials does not indicate that the site is eligible for inclusion on the National Register,[52] yet the FCC's historic review process often operates prophylactically, as if any project on or near a potentially-historic site or artifact has caused offense.

Competitive carriers have suffered under this ill-defined regulatory regime. The total amount of fees per small cell location have increased dramatically in recent years, typically in the form of review fees before any actual artifacts or burials are found. A review of fee demands from members as of February 2017 shows that at least one Tribe has raised its review fees to $1,650 per project, another Tribe charges $1,500, another Tribe is at $1,200, and six additional Tribes have fees of $1,000. One member reported that in 2011, the average fees per site was $381.67 and

[47] See Wireless Accelerating Broadband NPRM ¶¶ 43-45.

[48] Memorandum, Executive Director to Federal Preservation Officers, Tribal Historic Preservation Officers, State Historic Preservation Officers, Indian Tribes, Fees in the Section 106 Review Process (July 6, 2001) (emphasis added), http://www.achp.gov/regs-fees.html.

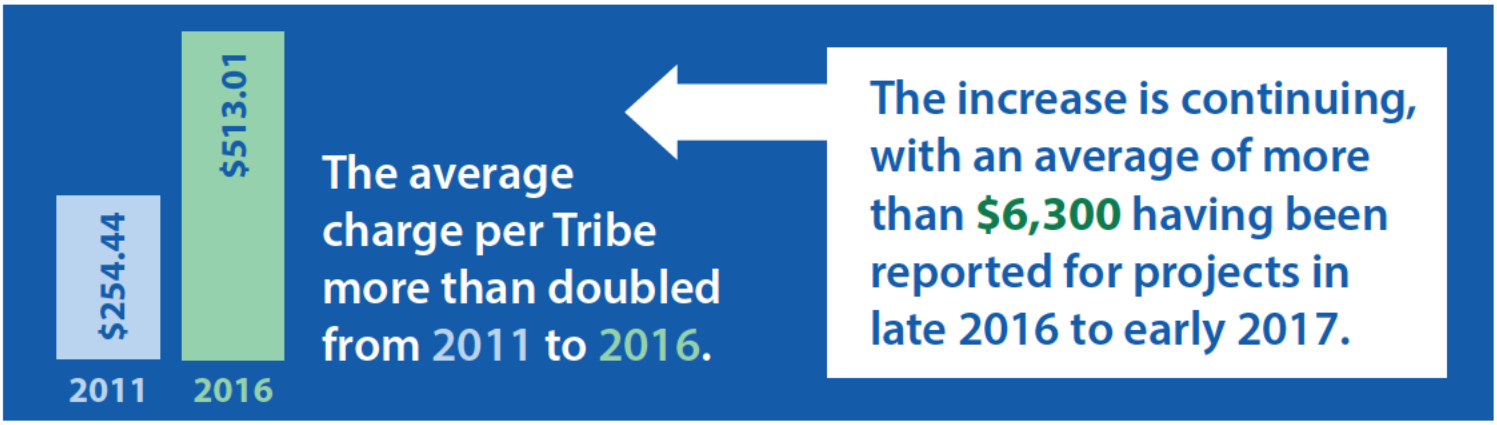
[49] Consultation With Indian Tribes in the Section 106 Review Process: A Handbook, Nov. 2008, p. 12.

[50] ACHP, Consultation with Indian Tribes in the Section 106 Review Process: A Handbook, at 13 (2012), http://www.achp.gov/pdfs/consultation-with-indian-tribes-handbook-june-2012.pdf (ACHP 2012 Handbook).

[51] National Register criteria for evaluation. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and
(a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
(b) that are associated with the lives of persons significant in our past; or
(c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
(d) that have yielded, or may be likely to yield, information important in prehistory or history.
36 C.F.R. § 60.4.

[52] Note that the historic review process is distinct from the obligation to notify Tribes if human remains are discovered. In that circumstance, the installer is obligated to stop work, notify the affected THPO, and adhere to federal and state laws regarding the treatment of human or burial remains. 2004 NPA § 9.D.

the average fee demand per Tribe was just over $250. In 2012, for one competitive carrier, the average site received payment requests from just under two Tribes, while in 2016, the number of Tribes reviewing each site was more than 10. The average charge per Tribe more than doubled over that period, from $254.44 in 2011 to $513.01 in 2016. Recent trends show that the increase is continuing, with an average of more than $6,300 having been reported for projects in late 2016 to early 2017.



Data from an environmental consultant working for many different carriers reported a range of fee demands by state, from as low as $642 per site in Washington to $10,708 in Illinois. The lowest fees were reported in the Pacific Coast states and the mid-Atlantic, with the highest fees prevailing in the Midwest and Great Plains.

The Tribal fee demands in Chicago may be the highest in the country. A recent project for a tower company building a new tower resulted in 37 Tribes requesting participation, 29 of which requested fees ranging from $125 to $2,100 for a Tribe seeking a site visit charge for each new site involving excavation. In this case, the total costs for this project would exceed $18,000 in fees alone. Fees for new macro cell collocations in Chicago are generating demands in the range of $11,000 to $12,000.

While these fees certainly raise an eyebrow in isolation, both rural carriers like Rolling Hills Wireless and nationwide carriers like City Center Wireless will have to shoulder any Tribal fees on top of fees charged by the state or local authority managing the ROW. Those fees vary between location and project type. CCA members cite too many examples where the fees assessed by state and local authorities bear no relation to review and maintenance costs—sometimes to the tune of tens of thousands of dollars. For example, one CCA member reports that Chicago, San Francisco, and New York City all charge escalating annual municipal pole attachment fees ranging from $4,000-6,000 per pole, per year. In a Virginia county, a distributed network company was quoted a $24,000 fee to replace a wood utility pole in a ROW to install a DAS node to complete an 11-node network. Even though the utility pole was identical to all other poles in the ROW, the Virginia Department of Transportation classified the wooden utility pole as a "tower" and used a state rule to justify a $24,000 attachment fee.

One member has reported that in a small-cell deployment in Houston, the costs for Tribal review constituted more than 50% of the remaining costs of the sites. Crown Castle, in a 2015 FCC filing, described a deployment on the historic Ben Franklin Parkway in Philadelphia, which "resulted in approximately $99,000 in Tribal fees, even though the deployment was in a previously disturbed area and the design involved the installation of stealth infrastructure."[53] A deployment in Atlanta with "little or no visible impact" on a nearby historic district, and slated to be contained within a previously-disturbed ROW, commanded payment of $169,000 in Tribal fees.[54]

[53] *See* Crown Castle Comments at 6.

[54] *Id.* at 6-7.

Carriers deploying in urban or rural environments face the same choice: either "pay to play" or risk failing to meet rising consumer demand for mobile data.

Rolling Hills

Given this environment, Rolling Hills Wireless debates internally as to whether to pay the fees at all. After all, paying about $6,000 in initial Tribal fees, on top of all other required fees and costs, significantly raises the estimated cost of this small antenna project. In the end, Rolling Hills Wireless decides to pay the up-front "identification" fees and move on. This siting project is designed to provide extra bandwidth to the Townsville Middle School. It is important to Rolling Hills Wireless that its tablet program with the Townsville Middle School is a success, and that it is improving coverage and capacity in a busy area where students like to stream video.

City Center Wireless also decides to pay the $19,000 "up front" fees, in hopes that this will be enough to encourage Tribes to approve the project before the FCC. This fee makes City Center Wireless wary that it can cost-effectively execute the small cell initiative in Metropolis. City Center Wireless typifies the challenge carriers face deploying in urban areas, especially when negotiations fail and Tribes insist on charging review fees on a per-pole basis. In the end, no further historic concerns are raised, and City Center Wireless proceeds with the project. City Center Wireless decides to significantly adjust its Tribal fees budget for future deployments, resulting in fewer deployments overall.

Phase II: Tribal Consultation.

In Rolling Hills Wireless' case, a few Tribes that participated in the initial identification phase request to oversee the deployment and ensure no Historic Property is harmed. They ask Rolling Hills Wireless to pay for housing and additional costs attached to monitoring the site. Although the vast majority of the fees requested by Tribes are for

"Rolling Hills Wireless braces itself; it has been respectful and responsive to Tribal concerns, but paying for an on-site consultant feels like too much and hints at even more fees in the future."

the identification phase of the process, if a Tribe identifies a Historic Property[55] it may request a consultation to mitigate the impact on the Historic Place, either by relocation or by modification of the proposed installation.[56]

Rolling Hills Wireless braces itself; it has been respectful and responsive to Tribal concerns, but paying for an on-site consultant feels like too much and hints at even more fees in the future. Rolling Hills Wireless also knows that the FCC has allowed Tribes to charge multiple fees for the same site, even to the same carrier, at different times. The NPA contemplates an exemption for previously reviewed sites,[57] but the FCC has not put a system in place to implement that exclusion. One CCA member reports that it paid $2,700 in Tribal review fees in 2014 to install three antennas while simultaneously removing six obsolete antennas on the rooftop of a modern building in an urban location in Georgia. That member then paid $6,100 in Tribal review fees two years later to install three new antennas on the same rooftop. In neither circumstance was any excavation performed. Rolling Hills Wireless, therefore, may reasonably expect that this initial Tribal interest may denote further fees in years to come, even if Rolling Hills Wireless never breaks ground.

Rolling Hills Wireless finds that the total cost of initial and ongoing Tribal fees is jeopardizing the success of the project near Townsville Middle School. The Rolling Hills Wireless team also worries about whether planned nearby deployments will also include the same identification fees and consultation fees. Rolling Hills Wireless' project lead, frustrated, asks its compliance officer to double-check whether all assessed Tribal fees are allowed; surely there is room for Rolling Hills Wireless to push back on at least some of the fees.

"...the total cost of initial and ongoing Tribal fees is jeopardizing the success of the project."

Rolling Hills Wireless' compliance officer returns with a discouraging verdict. While nothing in the FCC's rules requires applicants to pay identification or consultation fees requested by Tribes, there are no constraints, in the NPAs, NHPA, or elsewhere, on the number of fees any individual Tribe can demand nor on the geographic areas for which a Tribe may demand consultation. Tribal fees and review can become mandatory even after deployment is complete.[58] Without guidance or legal backstops, Rolling Hills Wireless is effectively at the mercy of the FCC to resolve this dispute.

[55] The 2004 NPA identifies two types of effects of a cell tower on a Historic Property: direct and indirect. The NPA defines direct effects as "the area of potential ground disturbance and any property, or any portion thereof, that will be physically altered or destroyed by the Undertaking." For small cells, this is a typically a hole approximately 14 inches in diameter and 5 to 8 feet deep in which a utility pole is inserted. The area for visual effects is a ½ mile radius for towers of less than 200 feet. It is unlikely that an antenna installation on a utility pole or building would ever have an adverse indirect affect as the standard under the NPA is to define adverse indirect effect as the "introduc[tion of] visual elements that diminish or alter the setting, including the landscape, where the setting is a character-defining feature of a Historic Property that makes it eligible for listing on the National Register." 2004 NPA § VI.C.3.

[56] *Id*. §. VII.

[57] *Id*. §. III.F.

[58] 2016 NPA § V.C.

IV. Conclusion.

Dense wireless infrastructure, particularly dense small cell facilities, is the next evolution of mobile networks, but cost remains an obstacle to the widespread deployment that carriers need to install to meet consumer demand. One estimate of current costs per site is $35,000.[59] Given that one member has estimated that average Tribal historic review fees now exceed $6,300, those fees account for 18 percent of the entire cost of a location, including the pole, radio equipment, backhaul installation, power supply, and local permitting fees. As the price of small cell hardware continues to fall, regulatory reforms at the local, state, and federal levels are likely to decrease costs even more.

Given that advanced wireless services will not be competitively deployed without cost-effective network densification, the Commission, Tribes, and industry stakeholders need to have an open, albeit difficult, conversation about how to protect Tribal areas of historic, religious, or cultural significance in a way that does not open up competitive carriers to unlimited fees and delays. For Tribal Nations, these fees are short-term gains, harming real, long-term economic opportunity for Tribal communities considering the economic benefits of mobile broadband.

There are many ways to address this issue. The FCC or Congress could, for example, clarify if and when paying Tribal fees is mandatory, and impose commonsense "shot clocks" throughout the Section 106 process. The Commission also should continue to gather and release data regarding Tribal fees to facilitate better decision-making on this issue. CCA suggests the Commission will continue to find Tribal fees are out of hand and seldom connected to actually protecting Historic Properties.

If the FCC or Congress is looking to impactfully remove some bureaucratic red tape, look no further. Providing some firm rules to address timing and cost issues stemming from the Tribal consultation process will make a big difference in spurring advanced mobile services and ensuring Historic Property is actually protected.

[59] Colin Gibbs, *Small cells: Still plenty of potential despite big challenges,* FierceWireless (Sep. 1, 2016), http://www.fiercewireless.com/wireless/small-cells-still-plenty-potential-despite-big-challenges

www.ccamobile.org